



Inspector's Daily Report

	IDR Sheet	1	of	3	Sheets
Contract	Day				Date
C7852	Wednesday				June 8, 2011

DIARY - Including but not limited to: a report of the day's operations, time log (if applicable), orders given and received, discussions with contractor, and any applicable statements for the monthly estimate.

Please refer to the Jerry Dilley's (WSDOT Consultant - Superior Blasting) and Mike Mulhern's (WSDOT Geotechnical Division Inspector) IDR's for the performance relative to the Blast #2011-0011 on the evening of June 7, 2011.

I arrived at the Hyak field office around 11:00 am to find that KLB was excavating the 1329+00 to 1330+10 section for Jerry Dilley, Brandon Bair (Contractor's Blaster-In-Charge), and me to review. Brad Schut indicated that they would be ready for us to review the slope around 12:30 pm.

I went out to the construction site with Mike Mulhern and Eric Smith (WSDOT Geotechnical Inspector) at 12:30 pm to find Jerry Dilley already on-site and talking with Brandon Bair. As we were walking up to the recently excavated section, Jerry Dilley and I noticed that they had drilled a preshear drill line from approximately LW Station 1326+00 to 1327+00. As you can see in Figure 1, there is still room for improvement in drilling straight preshear lines; however, this is a dramatic improvement from the previous season.

We walked up to the recently excavated section that appeared to be between LW Station 1328+85 and 1329+50. The excavation ranged from about 15 to 12 feet deep from north to south. The preshear line is between 18 and 24 inches out of alignment in the horizontal and vertical directions. There are converging and diverging preshear holes that unequally distributed the explosives in the slope (Figure 2). In addition, there appears to be a hard toe developing along the base of the exposed presplit face, possibly indicating that the unequal distribution of the explosives due to poor preshear drilling alignment and the distance of the first buffer production row maybe too far to adequately break up the rock. No back break, overbreak, or face spalling was observed in the fresh presplit face. Overall, we were very disappointed with the preshear line between LW Station 1328+85 and about 1329+25. The preshear section from approximately LW Station 1329+25 to 1329+50 was in much better condition and drill control was substantially improved with closer spaced 3-inch drill holes (Figure 3). From LW Station 1328+85 to 1329+25, the holes were spaced wider than 24 inches and appeared to be 3.5-inch drill holes.

Brandon Bair joined Eric Smith, Mike Mulhern, Brad Schut, Jerry Dilley and I at the face at 1:30 pm. We began talking about the lack of drill control in the preshear and Brandon mentioned that we were looking at old preshear line from last season. He indicated that their first hole this season was drilled at LW Station 1329+27, but he did agree that the preshear line was poor in last years face. Brad told us that he would evaluate the preshear lines



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when the lift got to full depth and would ask for a credit for all the preshear lines out of specification tolerances. I emphasized to Brandon that drill control is a major issue that we need them to get under control in this complex geology. We saw great face conditions when drilling was better controlled under the soil nail wall last year with adverse geology dipping out of the slope. Brandon said that he would continue to emphasize to Brad Collier (Western States Lead Driller) that drilling was very important. I told him that even though we couldn't see much of their preshear drilling that Jerry and I were not totally satisfied with the preshear alignment we just reviewed between LW 1326+00 to 1327+00. Again, I emphasized that drill control was one of the few things that we can control the outcome of on this hill and that we should do everything in our power to make sure we are doing it well. This has been a reoccurring theme with Brandon and Western States this season. From what we have observed thus far, they are making strides to improve their drill control.

Brandon mentioned that some hard toe development was starting in the presplit face that will probably get bigger as they excavate to full bench depth. Jerry and I asked him what he thought he could do to mitigate the hard toe development and he talked about several alternatives, but arrived at asking for a variance to move the first buffer production row in from 6 to 5 feet from the presplit line in the Lapilli Tuff (Template #4). We agreed. He also asked if he could move in the first full depth production row from 7 to 6 feet in the Basalts (Template #1) and try 11 ft. by 11 ft. and 10 ft by 11 ft burden and spacing with 4-inch holes. We agreed and asked that he send all these proposed changes to Bob Hooker for documentation and approval. I told Brandon that I would call Bob Hooker shortly after our meeting to let him know about these upcoming blast template changes that had been agreed to on-the-grade by Jerry Dilley, Brandon Bair, and myself.

Jerry Dilley asked about the schedule for the soil nail wall blasts this season. Brandon indicated that they were waiting for NW Cascade to complete the soil nail wall section and then they would drill the preshear line to full depth and begin shooting late this next week, after 7 days of cure for the shotcrete section. We asked if he would consider cushion shots again that combined the control holes and production holes in one shot and he indicated that he didn't like the timing issues associated with those shots from late last season because they had a lot of cutoffs. He said that he would like to shoot full depth preshear by itself and then 12 foot production shots for the remainder of the soil nail wall.



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As we were heading down the hill back to our rigs, Brandon asked if he could include the preshear shot from LW Station 1326+00 to 1327+00 in Thursday night's shot. I said I didn't have a problem with that as long as he was requesting the change in blast schedule with Bob Hooker. He said that he would email Bob shortly after our discussion.

Jerry Dilley left the site around 3:00 pm and I went back to the Hyak office with Mike Mulhern to drop him at his rig. On our way back to the construction office, we received a text message from Steve Lowell asking how wet the drill holes had been drilling from LW Station 1329+00 to the south. Mike called Brad Schut on-the-grade and Brandon indicated that the holes have been generally dry, except at the face in the preshear line. In addition, there were voids the drillers noticed between 16 and 21 feet deep in the last production shot from approximately LW Sta. 1330+50 to 1332+00. I called Steve back and left a message with this information on his voicemail.

I left the site at 3:30 pm.

On the way home I spoke with Bob Hooker and conveyed the information shared on-the-grade and made him aware that Brandon had proposed some minor changes to the blast templates that Jerry Dilley and I thought were reasonable given the site conditions and results of the recent blast inspections.

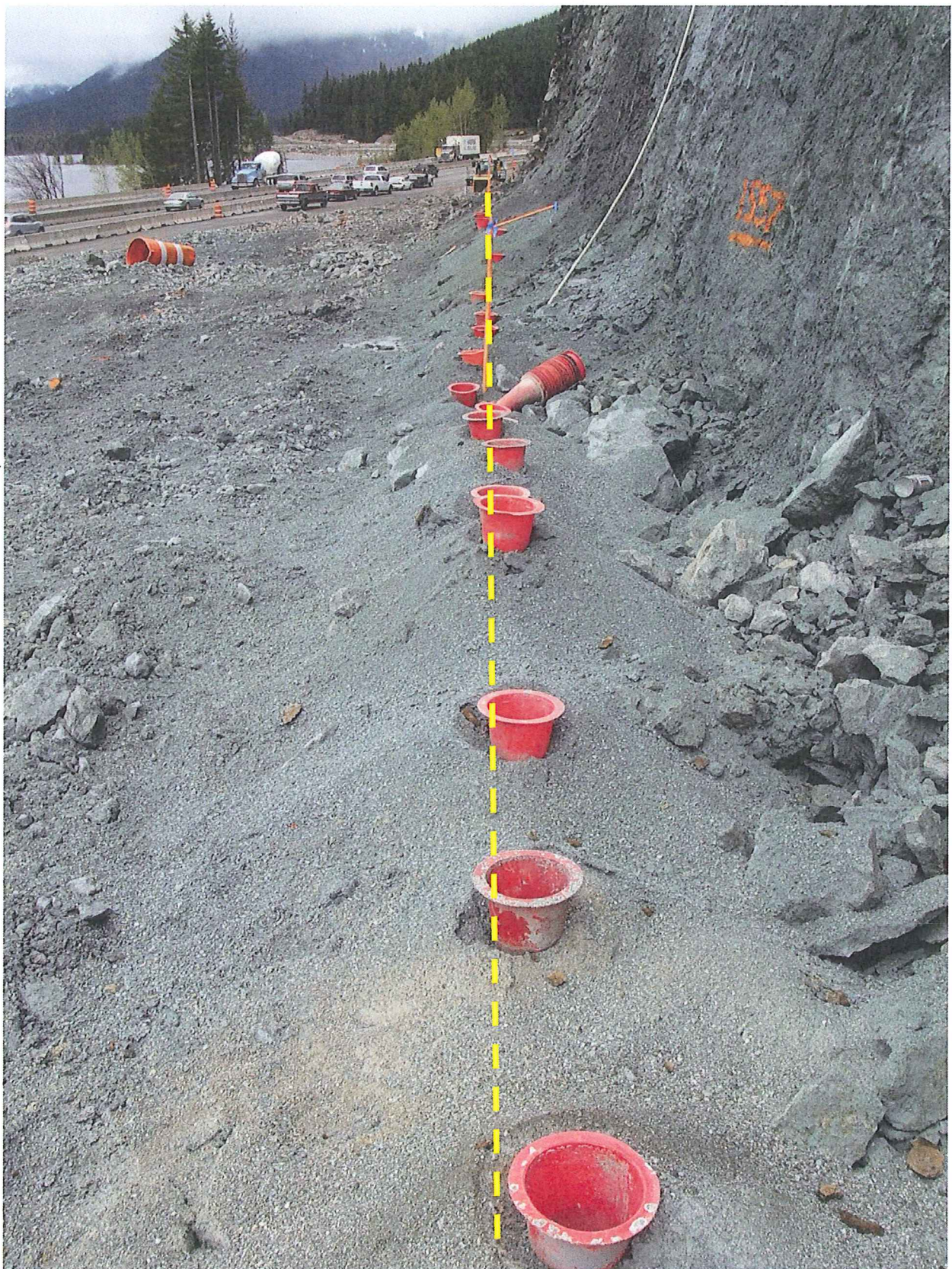


Figure 1. A photo of the line drilling for the preshear blast between approximately LW Station 1326+00 and 1327+00. The yellow dashed line is the surveyed preshear alignment.

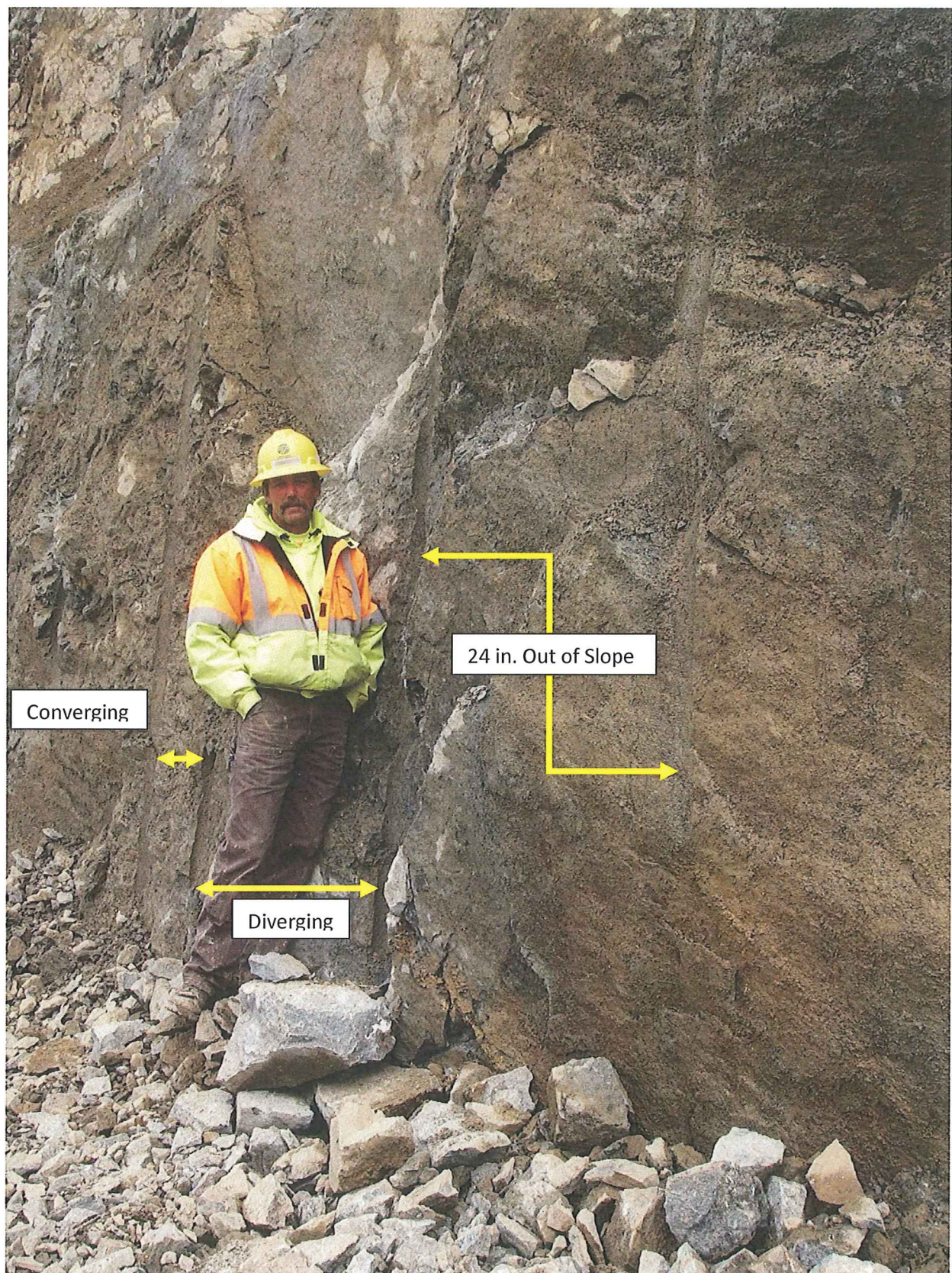


Figure 2. A photo of the poor vertical and horizontal drill control of the preshear line between approximately LW Station 1328+85 and 1329+25.

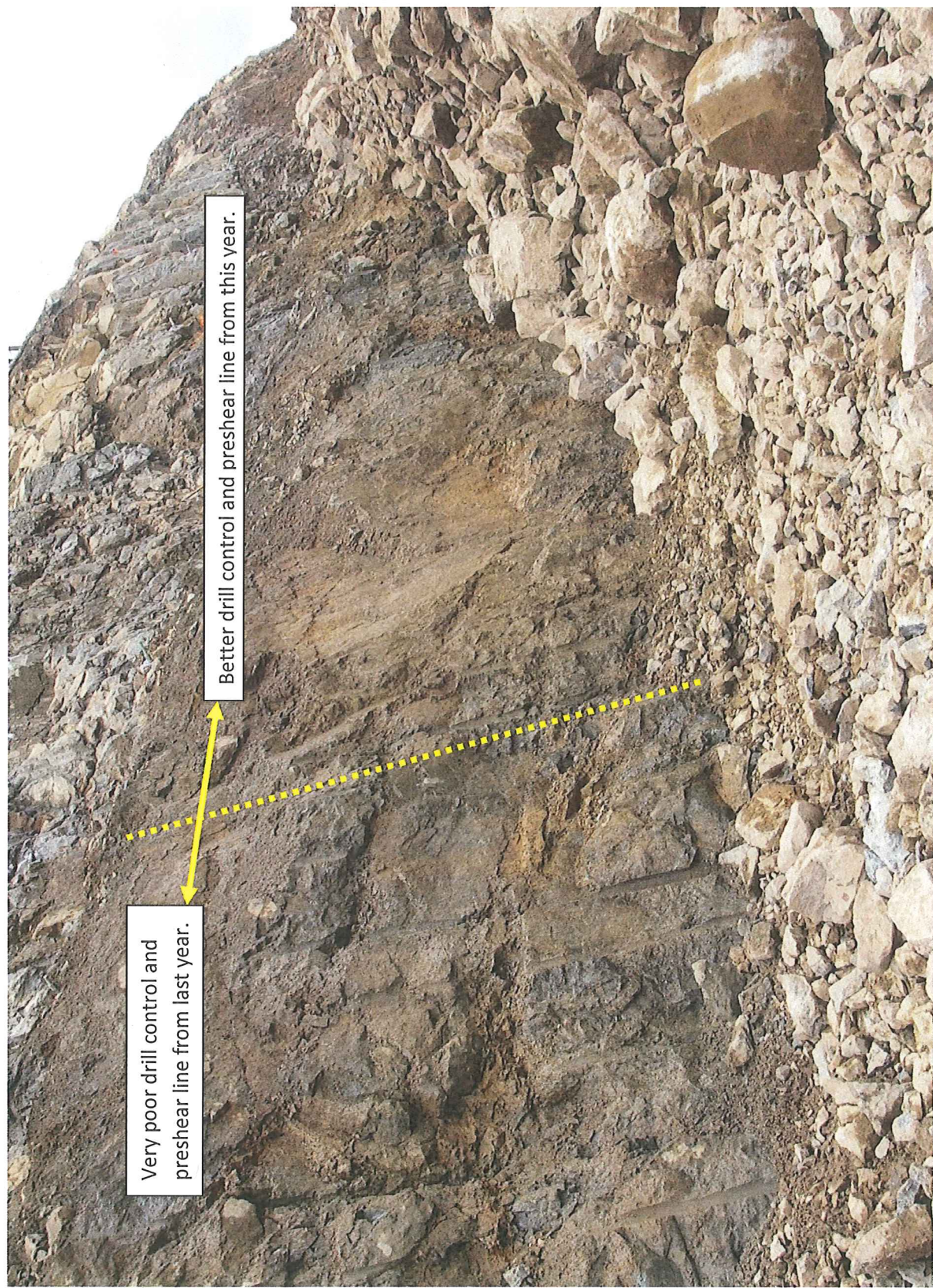


Figure 3. A photo looking at the presplit drilled last year and this year by Western States from approximately LW Station 1329+10 to 1329+50. The older preshear was not exposed and subjected to the winter shutdown weather.